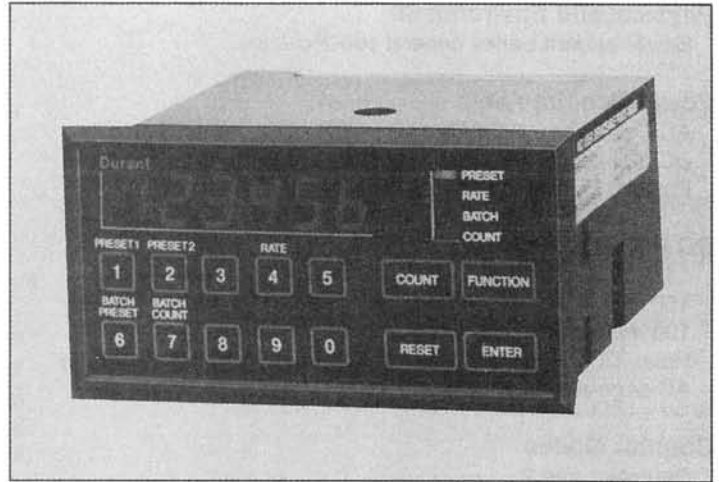


PRESIDENT SERIES COUNT / CONTROL

High - Speed Control with Batch counter and Rate

MODEL 58867-400

- 30 kHz Count Speed
- Enhanced Serial Communications
- Dual-Preset Main Counter
- Single Preset Batch Counter
- Count Scaling
- Ratemeter
- Fast Output Response



Model 58867-400

The Durant High Speed President is a micro-processor based count control device with three times the count speed and twice the positional resolution capability of other President series controls. The maximum count input speed is 30 kHz. Programmable count input modes include quadrature X1, X2, and X4 resolution selections.

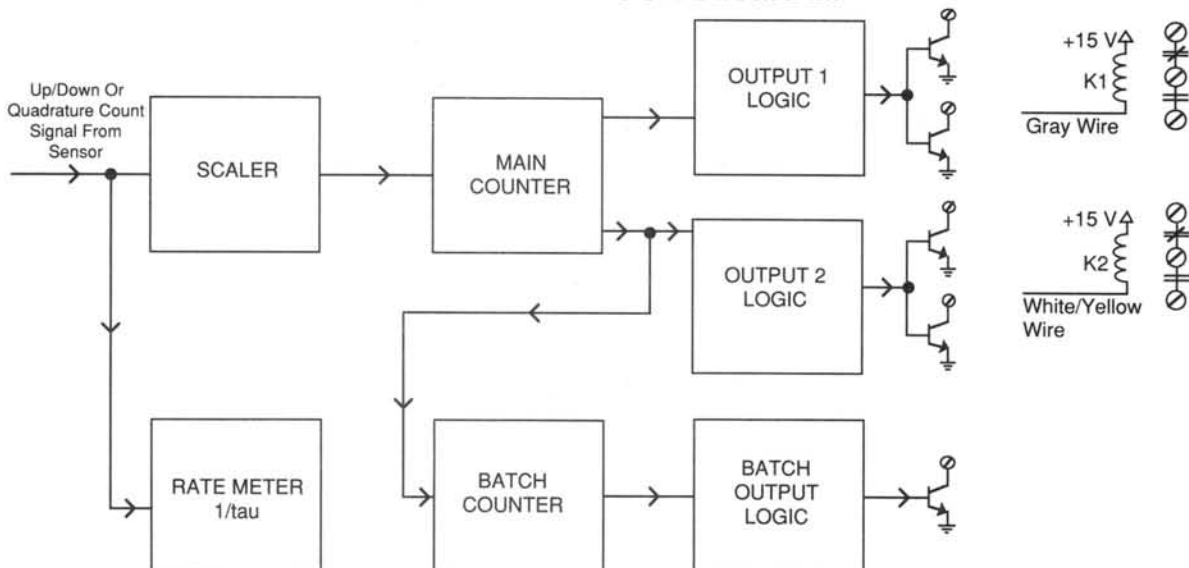
The device has a six-digit, dual preset main counter with scaling, a six-digit, single-preset batch counter, and a six-digit, 1/tau rate meter with scaling. The two main counter presets can be configured to operate as a standard dual-preset control or as a single preset control with prewarn. The unit includes an option for entering presets "on the fly" to prevent counting beyond a new preset.

There are three sets of transistor outputs (one for each preset) and two form "C" relay outputs. The transistor outputs have the fast response time required for accurate high speed control. The control also features four programmable inputs each of which may be used for one of eight functions.

The High Speed President includes two communication modes. The standard mode is compatible with existing President series products. The enhanced mode has additional features that allow a host computer to change function codes and control outputs directly.

The High Speed President is ideal for roll forming, cut-to-length, positioning, and other applications requiring high resolution-high speed measurement.

OVERALL BLOCK DIAGRAM



Specifications and Operation

Physical and Environment

See President Series general specifications.

Power Requirements

AC Operation: 120/240 VAC (+10%, -20%) 47 - 63 Hz.

DC Operation: 11 - 28 VDC.

Power: 18 Watts

DC Power Output

15 VDC (+1, -2).

150 mA if powered from AC or less than 24 VDC.

100 mA if powered from 24 VDC or greater.

Note: DC power output is only regulated if unit is powered by AC or greater than 18.5 VDC.

Counter Modes

Reset to zero only.

Auto recycle at Preset 2.

Control Inputs

Reset.

Front panel reset (may be disabled).

Terminals 1 through 4 can each be programmed to perform any one of the following functions:

No function.

Unlatch output 1.

Unlatch output 2.

Unlatch outputs 1 and 2.

Unlatch output 3.

Latch outputs/and optionally reset counter.

Reset batch counter.

Initiate serial transmission.

Decrement batch counter.

Program inhibit.

Count Scaler

Scale Factor Range: 0.00100 to 9.99999.

Output Specifications

2 Relays with one set of Form C contacts.

Type: FORM-C (SPDT).

U.L./C.S.A. Contact Ratings:

10 amps, resistive, @ 24 VDC or 240 VAC.

1/3 HP @ 120 VAC or 240 VAC.

150 VDC maximum switched voltage.

Mechanical Life: 5,000,000 operations.

Electrical Life: 100,000 operations at resistive rating.

5 Transistor Outputs

Type: Open collector NPN transistor with Zener diode transient surge protection.

Load Voltage: 30 VDC maximum.

Load Current: 300 milliamps maximum per transistor. 480 milliamps total for all transistors. Use 90 milliamps per relay coil when calculating total transistor current.

Programmable Output Modes: Reverse, timeout, unlatch at reset, latch until reset complete, crop-cut.

Timeout: .01 to 99.99 Sec, ± 1%(±.01 Sec if <1 Sec).

Count Input Modes (2 input signals)

Add/subtract, quadrature, quadrature X2, quadrature X4.

Count Input Signal Requirements

Current sinking signal, must conduct to DC common. Must block 15 VDC in high state and sink 2.2 mA in low state. Current sourcing signals may be used with external resistor.

Count Input Frequency

The maximum count input frequency depends only on the selected count mode (doubled or quadrature X4). The maximum input frequencies shown are with square wave (50% duty cycle) input.

	x1	x2	x4
High Speed Mode:	30 kHz	15 kHz	7.5 kHz
Low Speed Mode:	200 Hz	200 Hz	200 Hz

(Low speed jumpers installed.)

Note: Only count input mode and the double jumper affect the maximum count input speed. The scale factor does not affect the input speed. If the scale factor is set to 9.99999 (10) the unit will count at a maximum rate of 300 kHz.

Rate Indicator

Type: 6 digit, 1/tau (time interval).

Scaler Range: 0.0001 to 99999.

Decimal Point: 5 positions, programmable.

Accuracy: 0.1% of reading.

Update Time: 0.75 seconds (approximate).

Zero Time: 10 seconds, fixed.

Serial Communication Interface

20 mA current loop, 110, 300 or 1200 Baud.

ORDERING INFORMATION

Model Number	Product Description
58867-400	6 Digit, Dual Preset, High-Speed Control with Batch Counter and Rate